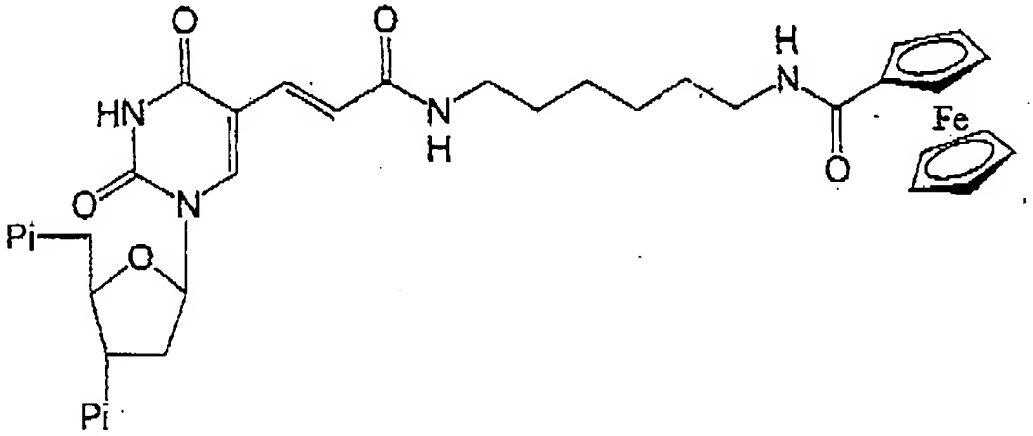
AMENDMENT TO THE SPECIFICATION:

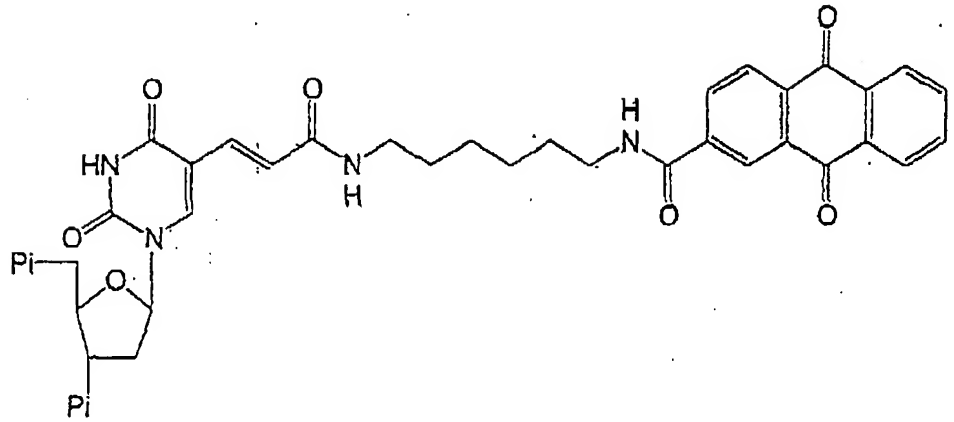
Amend the paragraph beginning at page 14, line 22, as follows:

In this bipolar transistor, the following modifying nucleic acids having different polarities~~, described in the above paragraph entitled "DESCRIPTION OF THE PREFERRED EMBODIMENTS"~~, were introduced as T^1 and T^2 of the DNAs.

T^1 = ferroan-modified dT

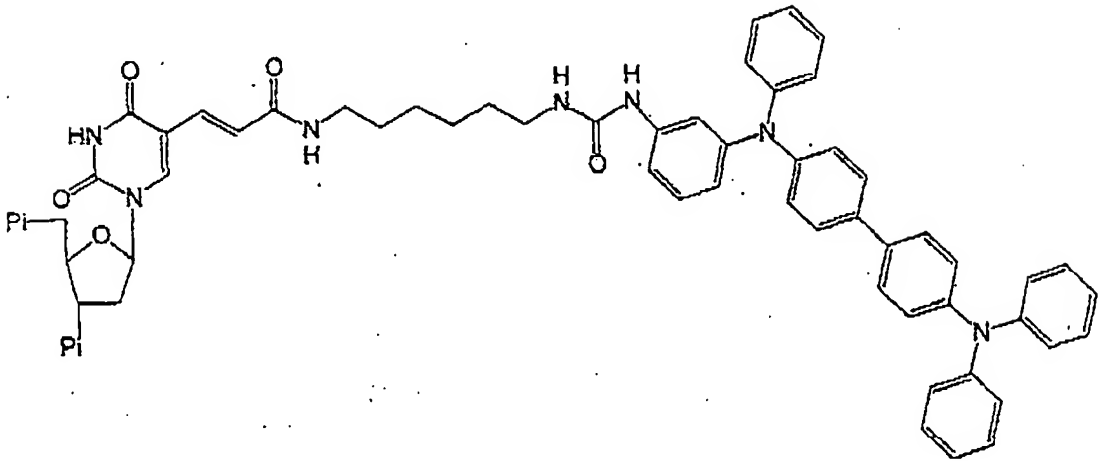


T^2 = anthraquinone-modified dT

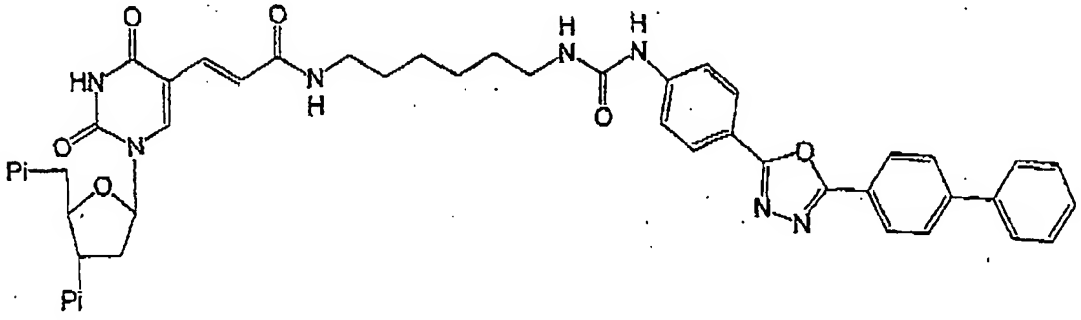


OR

T^1 = tetraphenylbenzidine (TPB) - modified dT



T^2 = 2 - phenyl - 5 (4-diphenyl) -1, 3, 4-oxazole (PBD) - modified dT

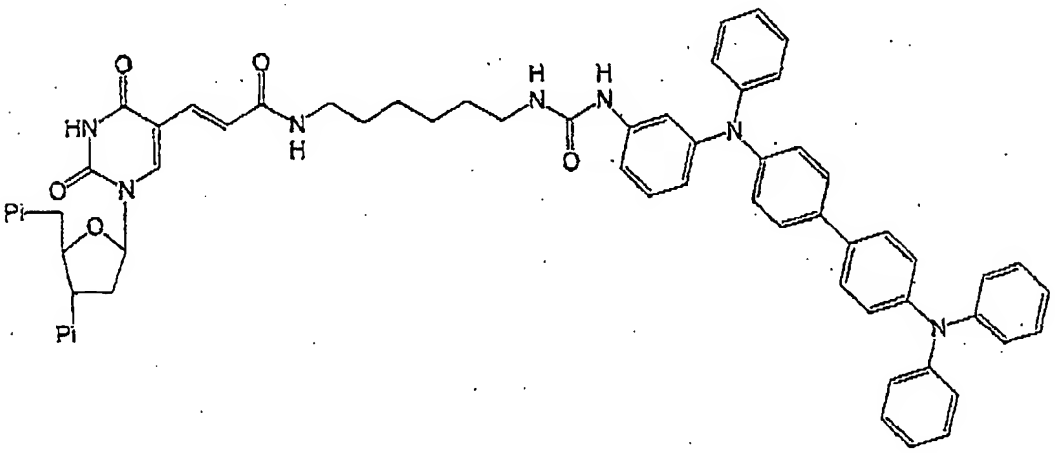


It was observed that the resulting bipolar transistor can exhibit the expected transistor effects.

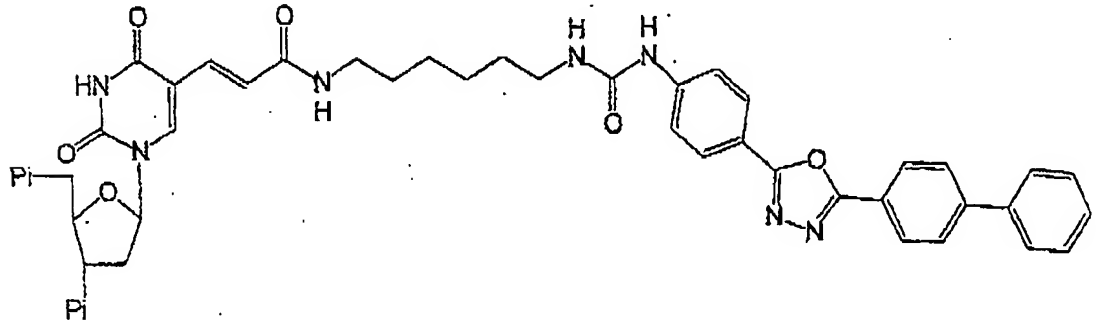
Amend the paragraph beginning at page 15, line 3, as follows:

In this photodiode, the following modifying nucleic acids having different polarities, ~~described in the above paragraph entitled "DESCRIPTION OF THE PREFERRED EMBODIMENTS",~~ were introduced as T^1 and T^3 of the DNAs[[, and]].

T^1 = tetraphenylbenzidine (TPB) - modified dT

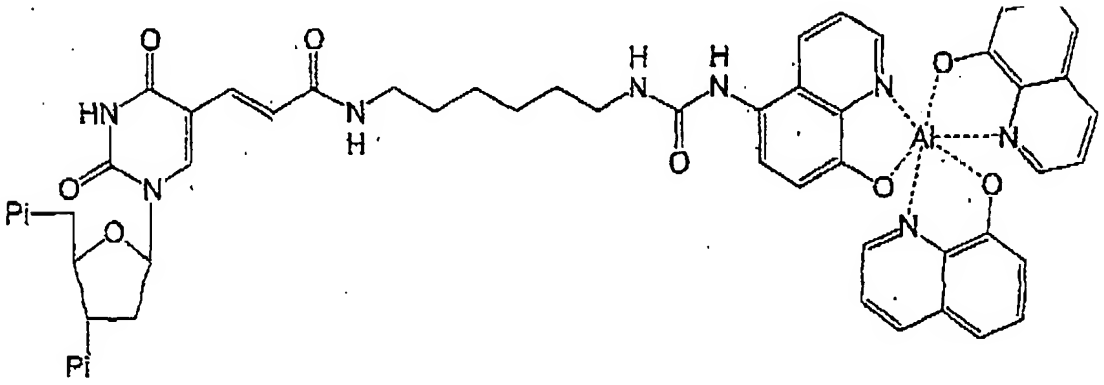


T^3 = 2-phenyl - 5(4-diphenyl) -1, 3, 4 -oxazole (PBD) - modified dT



at the same time, [[a]] the following nucleic acid modified with a functional group capable of emitting light upon application of an electromotive force was introduced as T^2 of the DNA.

T^2 = tris (8-hydroxyquinolinate (Alg)) - modified dT



It was observed that the resulting photodiode can exhibit the expected photodiode effect.